

Name: \_\_\_\_\_

HW: Rate of Change/Slope

Teacher: \_\_\_\_\_

Algebra Pd: \_\_\_\_\_

\_\_\_\_\_  
Day

\_\_\_\_\_  
Month

\_\_\_\_\_  
Year

**Part One: Calculating Rate of Change/Slope:** Calculate the rate of change/slope for each situation.

1. A basketball player scores 8 points in the first ten minutes of the game and a total of twelve points in the first twenty minutes. What is the rate of change in points over time?

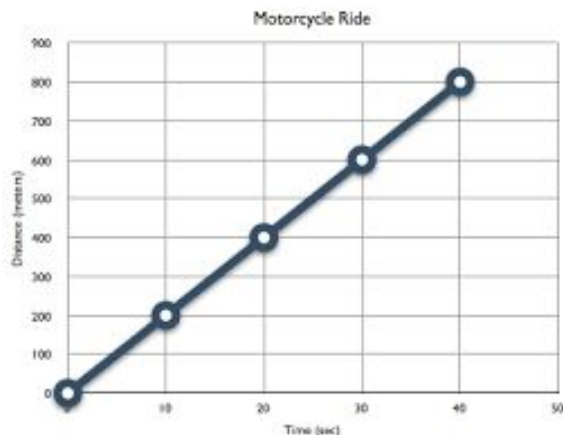
2. An alligator is 6 inches long at birth and 6 feet long at two years old. What is the rate of change in length (in feet) over time?

3. when  $x = 4$ ,  $f(x) = 20$   
when  $x = 5$ ,  $f(x) = 25$

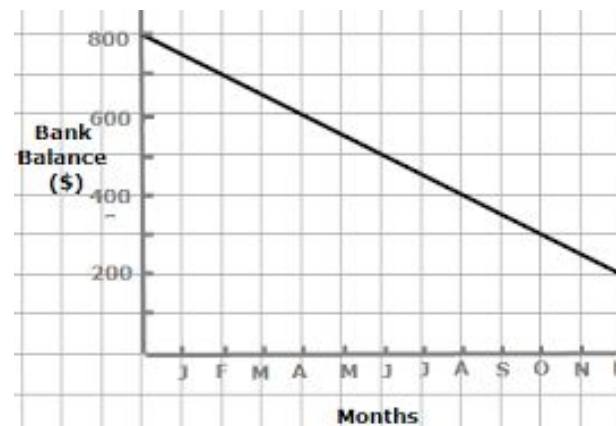
4.

x	-1	0
f(x)	4	6

5.



6.



7. between  $(9, 0)$  and  $(-9, 2)$

8. between  $(4, -2)$  and  $(1, -8)$

## Part Two: Mixed Review

9. Complete the input/output table for the function:  $f(x) = -2x^2 + 3$

x	f(x)
-2	
-1	
0	
1	
2	

10. Complete the input/output table for the function:  $f(x) = -3x + 8$ .

x	f(x)
-2	
-1	
	23
	38
	50

11. What is the definition of persevere? What is one specific way your teacher expects you to persevere in Algebra class?

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12. What does Algebra mean in Arabic? How can you apply this definition to one of the specific concepts of Algebra?

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